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TRANS Filing Date First Named Group Art U Examiner Na			Serial Number	10/533,372		
			Filing Date		April 29, 2005	
			First Named Inventor		Watts	
			Group Art Unit		2874	
			Examiner Name		Rhonda S. Peace	
			Attorney Docket No.  Patent No.		MIT-171  Not applicable	
ENCLOSURES (check all that apply)						
⊠ F	Fee Transmittal Form (Form PTOL-85)		Copy of Notice Parts of Applic	e to File Missing cation		Notice of Appeal to Board of Patent Appeals and Interferences
	<ul><li>☐ Check Attached</li><li>☐ Copy of Fee</li><li>Transmittal Form</li></ul>		Formal Drawin	ng(s)		Appeal Brief (in triplicate)
	Amendment/Response		Request For C Examination (			Status Inquiry
	☐ Preliminary ☐ After Final ☐ Affidavits/declaration(s) ☐ Letter to Official ☐ Draftsperson		Transmittal  Power of Attorney			Return Receipt Postcard
				(Revocation of Prior Powers)		Certificate of First Class Mailing under 37 C.F.R. 1.8
	including Drawings [Total Sheets]		Terminal Disc	laimer		Certificate of Facsimile Transmission under 37 C.F.R. 1.8
	Petition for Extension of Time		Executed Declaration and Power of Attorney for Utility or Design Patent Application			Additional Enclosure(s) (please identify below)  - Comments on Statement of
	Information Disclosure Statement		Small Entity S	tatement		Reasons for Allowance
	Form PTO-1449 Copies of IDS Citations		CD(s) for large	e table or computer		
	Certified Copy of Priority Document(s)		Amendment After Allowance			
	Sequence Listing submission Paper Copy/CD Computer Readable Copy Statement verifying identity of above		Request for Co Correction Certificate duplicate)	ertificate of		
CORRESPONDENCE ADDRESS				SIGNATURE BLOCK		
Direct all correspondence to:  Patent Administrator Goodwin Procter LLP Exchange Place Boston, MA 02109 Tel. No.: (617) 570-1000 Fax No.: (617) 523-1231 Customer No. 051414				Respectfully submitted,  Date: May 9, 2006 Reg. No. 44,381 Tel. No.: (617) 570-1806 Fax No.: (617) 523-1231  Respectfully submitted,  Natasha C. Us  Attorney for Applicant Goodwin Procter LLP Exchange Place Boston, MA 02109		Natasha C. Us Attorney for Applicant Goodwin Procter LLP Exchange Place



### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S):

Watts

SERIAL NO.:

10/533,372

**GROUP NO.:** 

2874

FILING DATE:

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**EXAMINER:** 

Rhonda S. Peace

TITLE:

WAVELENGTH INSENSITIVE INTEGRATED OPTIC

POLARIZATION SPLITTER

### CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Mail Stop Issue Fee, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9<sup>th</sup> day/of May/2006.

Linda M. Penta

Mail Stop Issue Fee Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

#### Submitted herewith are:

- 1. Transmittal Form (1 pg.);
- 2. Form PTOL-85 (1 pg.);
- 3. Check in the amount of \$1,700.00;
- 4. Comments on Statement of Reasons for Allowance (2 pgs.); and
- 5. Return receipt postcard



PATENT Attorney Docket No. MIT-171

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Box Issue Fee Commissioner for Patents Washington, D.C. 20231

# COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

In response to the Examiner's statement of reasons for allowance included in the Notice of Allowability mailed from the U.S. Patent Office on February 13, 2006, Applicant notes that the applicable prior art does not disclose, nor does it reasonably suggest a polarization splitter comprising an input waveguide element to receive an optical signal having both TE and TM components; a geometrically vertically oriented waveguide element coupled to the input waveguide element that is configured to propagate the TM component of the optical signal, the vertically oriented waveguide element including a plurality of core layers; and a horizontally oriented waveguide element coupled to the input waveguide element and configured to propagate the TE component of the optical signal. Furthermore, the applicable prior art does not teach or suggest a method of forming an integrated optic polarization splitter by providing an input waveguide element that is configured to receive in input an optical signal having TE and TM components; forming a geometrically vertically oriented waveguide element coupled to the input waveguide element that is configured to propagate the TM component of the optical signal, the vertically oriented waveguide element including a plurality of core layers; and forming a horizontally oriented waveguide coupled to the input waveguide element and configured to propagate the TE component of the optical signal. Moreover, the applicable prior art does not disclose nor reasonably suggest forming a pair of waveguide elements, the first waveguide element having a horizontal orientation and the second

Comments On Statement Of Reasons For Allowance U.S. Application Serial No. 10/533,372 Page 2

waveguide element having a vertical orientation, wherein the two waveguide elements are intersected or nearly intersected at one end of the structure and separated at the other end of the structure with the transition therebetween made to be adiabatic, the waveguide elements being configured to receive an optical signal having both a TE component and a TM component and to propagate the TE component along the horizontally oriented waveguide element and the TM component along the vertically oriented waveguide.

Respectfully submitted,

Date: May 9, 2006 Reg. No. 44,381

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